# JOB DESCRIPTION

**Purpose of Role:** To enhance the bank’s real-time Electronic FX market making trading system, improving quality and distinctiveness of price generation and risk management.

**Major Responsibilities:**
- Analyze proprietary order flow data to find patterns in client behavior, using results to improve client pricing and optimize risk management.
- Analyze large, high frequency time series data sets and develop short term price forecasting models.
- Using public and proprietary data, identify new opportunities to increase trading volume and generate new business.
- Justify models/algorithms through appropriate out-of-sample backtesting periods and cross-validation techniques. Evaluate performance in practice and provide further improvements as needed.
- Develop research all the way from prototype to production.

# PERSON SPECIFICATION

**Specific Qualifications/Experience:**
- Masters and/or PhD in Data Analytics, Machine Learning, Statistics or related field
- Knowledge of big data lake structures, algorithms and techniques including classification, clustering, and regression.
- Experience implementing data analytics techniques within an academic research setting and/or real business problems.

**Level of Education:**
- Masters and/or PHD

**Skills - interpersonal, numerical, problem-solving, analytical, etc**
- Object oriented programming skills: Java or C++.
- Proficiency in statistical packages such as Matlab, Python or R.
- Solid statistical foundations
- Familiar with Hadoop frameworks.

**Disposition - motivation, team skills, ability to work under pressure, etc**
- Pragmatic mindset - research should be targeted at solving business problems and improving profitability.
- Good communication skills are required to interact with management, traders, salespeople, developers and clients.
- Self-motivated and with ability to work with minimal supervision.